



2818

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): AVNI, Dror et al. EXAMINER: Ho, H.
SERIAL NO.: 09/730,586 GROUP ART UNIT: 2818
FILED: December 7, 2000 Attorney Docket No.: P-2448-US1
FOR: PROGRAMMING AND ERASING METHODS FOR AN NROM ARRAY

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, this Information Disclosure Statement includes Form PTO-1499:

1. ☒ listing documents including patents, publications, and other information for consideration by the Examiner, copies of which are included with this information disclosure statement;
2. ☐ listing documents including patents, publications and other information that have been previously cited or submitted to the Patent Office in prior application U.S. Serial No. _____, filed _____ which is properly identified and relied on for an earlier effective filing date under 35 U.S.C. 120 for consideration by the Examiner; however, in accordance with 37 C.F.R. 1.98(d), copies of such documents are not included in this information disclosure statement; and/or
3. ☐ listing other information for the Examiner's consideration which was cited in a communication from a foreign patent office in a counterpart foreign application, a copy of which is included with this information disclosure statement.

The information herein cited is only in fulfillment of Applicant(s) duty of candor in disclosing all information brought to Applicant(s) attention. This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art". If it should be determined that any of the

listed documents do not constitute "prior art" under United States law, Applicant(s) reserve the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant(s) further reserve(s) the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

In accordance with MPEP Sections 609 and 707.05(b), it is requested that each and every document cited (including any cited in applicant's specification which is not repeated on the attached Form PTO-1449) be given thorough consideration and that it be cited of record in the prosecution history of the present application by initialing on Form PTO-1449. Such initialing is requested even if the Examiner does not consider it to be prior art for any reason, or even if the Examiner does not believe that the guidelines for citation have been fully complied with. This is requested so that each document becomes listed on the face of the patent issuing on the present application and is evidence that the Examiner has considered the document.

This Information Disclosure Statement is being filed:

I) ☒ Within three (3) months of filing the subject Application or entry of the subject Application into the national stage or before mailing of the first Office Action on the merits of the subject Application or a request for continued examination thereof, whichever event occurs last pursuant to of 37 C.F.R §1.97 (b); or

II) ☐ After the period specified in (I) but before the mailing date of either a final Official Action under 37 C.F.R §1.113 or a notice of allowance under 37 C.F.R §1.311 whichever occurs first and;

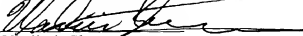
1. ☐ the undersigned hereby states that each item of information listed on the Form PTO-1449 was either (i) cited in a communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to the filing of this Information Disclosure Statement or (ii) not cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, not known to any individual designated in §1.56(c) more than three (3) months prior to the filing of this information disclosure statement; or

2. ☐ the undersigned hereby authorizes the Patent Office to charge the fee in the amount of \$180.00 under 37 C.F.R §1.17 (p) to Deposit Account 05-0649.

- III) ☐ After the period in (I) and (II) but before the payment of the issue fee and,
1. ☐ The undersigned hereby states:
 - a) ☐ that each item of information cited on the form PTO-1449 was cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three (3) months prior to the filing of this Information Disclosure Statement; or
 - b) ☐ that no items of information contained in Form PTO-1449 was cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement; and
 2. ☐ The undersigned hereby authorizes the Patent Office to charge the Petition fee in the Amount of \$180.00 under 37 C.F.R. §1.17 (p) to Deposit Account 05-0649.

Except for issue fees payable under 37 C.F.R. §1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 05-0649.

Respectfully submitted,



Vladimir Sherman

Attorney for Applicant(s)

Registration No. 43,116

Dated: June 12, 2003

Eitan, Pearl, Latzer & Cohen Zedek, LLP.
10 Rockefeller Plaza, Suite 1001
New York, New York 10020
Tel: (212) 632-3480
Fax: (212) 632-3490

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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 5

Complete if Known

Application Number	09/730,586
Filing Date	December 7, 2000
First Named Inventor	AVNI, Dror et al.
Group Art Unit	2818
Examiner Name	Ho, H.
Attorney Docket Number	P-2448-US1

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	AA	4,281,397		Neal et al.	7/28/1981	
	AB	4,388,705		Sheppard	6/14/1983	
	AC	4,389,705		Sheppard	6/21/1983	
	AD	5,467,308		Chang, et al.	11/14/1995	
	AE	4,586,163		Koike	4/29/1986	
	AF	4,916,671		Ichiguchi	4/10/1990	
	AG	5,117,389		Yiu	5/26/1992	
	AH	5,204,835		Eitan	4/20/1993	
	AI	5,241,497		Komarek	8/31/1993	
	AJ	5,268,861		Hotta	12/7/1993	
	AK	5,289,412		Frery et al.	2/22/1994	
	AL	5,293,563		Ohta	3/8/1994	
	AM	5,295,108		Higa	3/15/1994	
	AN	5,315,541		Harari et al.	5/24/1994	
	AO	5,338,954		Shimoji	8/16/1994	
	AP	5,345,425		Shikatani	9/6/1994	
	AQ	5,375,094		Naruke	12/20/1994	
	AR	5,399,891		Yiu et al.	3/21/1995	
	AS	5,412,601		Sawada et al.	5/2/1995	
	AT	5,424,978		Wada et al.	6/13/1995	
	AU	5,440,505		Fazio et al.	8/8/1995	
	AV	5,450,341		Sawada et al.	9/12/1995	
	AW	5,450,354		Sawada et al.	9/12/1995	
	AX	5,495,440		Asakura	2/27/1996	
	AY	5,521,870		Ishikawa	5/28/1996	
	AZ	5,563,823		Yiu et al.	10/8/1996	
	BA	5,568,085		Eitan et al.	10/22/1996	
	BB	5,583,808		Brahmbhatt	12/10/1996	
	BC	5,592,417		Mirabel	1/7/1997	
	BD	5,606,523		Mirabel	2/25/1997	
	BE	5,623,438		Guritz et al.	4/22/1997	
	BF	5,636,288		Bonneville et al.	6/3/1997	
	BG	5,661,060		Gill et al.	8/26/1997	
	BH	5,683,525		Irani et al.	11/4/1997	
	BI	5,715,193		Norman	2/3/1998	

Examiner
SignatureDate
Considered

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Substitute for form 1448A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number	09/730,586
(use as many sheets as necessary)		Filing Date	December 7, 2000
		First Named Inventor	AVNI, Dror et al.
		Group Art Unit	2818
		Examiner Name	Ho, H.
Sheet	2 of 5	Attorney Docket Number	P-2448-US1

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Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	BJ	5,754,475		Bill et al.	5/19/1998	
	BK	5,768,193		Lee et al.	6/16/1998	
	BL	5,777,919		Chi-Yung et al.	7/7/1998	
	BM	5,784,314		Sali et al.	7/21/1998	
	BN	5,812,456		Huli et al.	9/22/1998	
	BO	5,828,601		Hollmer et al.	10/27/1998	
	BP	5,834,851		Ikedo et al.	11/10/1998	
	BQ	5,862,076		Eitan	1/19/1999	
	BR	5,886,927		Takeuchi	3/23/1999	
	BS	5,892,710		Fazio et al.	4/6/1999	
	BT	5,949,728		Liu et al.	9/7/1999	
	BU	5,963,465		Eitan	10/5/1999	
	BV	5,946,258		Evert et al.	8/31/1999	
	BW	5,966,603		Eitan	10/12/1999	
	BX	5,969,993		Takeshima	10/19/1999	
	BY	5,990,526		Bez et al.	11/23/1999	
	BZ	6,396,741		Bloom et al.	5/28/2002	
	CA	6,081,456		Dadashev	6/27/2000	
	CB	6,108,241		Chevallier	8/22/2000	
	CC	6,128,226		Eitan et al.	10/3/2000	
	CD	6,134,156		Eitan	10/17/2000	
	CE	6,147,904		Liron	11/14/2000	
	CF	6,157,570		Nachumovsky	12/5/2000	
	CG	6,169,691		Pasotti et al.	1/2/2001	
	CH	6,175,523		Yang et al.	1/16/2001	
	CI	6,181,605		Hollmer et al.	1/30/2001	
	CJ	6,205,056		Pan et al.	3/20/2001	
	CK	6,215,148		Eitan	4/10/2001	
	CL	6,215,702		Derhacopian et al.	4/10/2001	
	CM	6,218,695		Nachumovsky	4/17/2001	
	CN	6,222,768		Hollmer et al.	4/24/2001	
	CO	6,240,032		Fukumoto	5/29/2001	

Examiner Signature	Date Considered
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 3 of 5

Application Number	09/730,586
Filing Date	December 7, 2000
First Named Inventor	AVNI, Dror et al.
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		Number	Kind Code ² (if known)			
	CP	6,240,040		Akaogi et al.	5/29/2001	
	CQ	6,256,231		Lavi et al.	7/3/2001	
	CR	6,266,281		Derhacopian et al.	7/24/2001	
	CS	6,282,145		Tran et al.	8/28/2001	
	CT	6,285,574		Eltan	9/4/2001	
	CU	6,304,485		Harari et al.	10/16/2001	
	CV	6,331,950		Kuo et al.	12/18/2001	
	CW	6,348,711		Eltan	2/19/2002	
	CX	6,490,204		Bloom et al.	12/3/2002	
	CY	2002/0132436		Ellyahu et al.	9/19/2002	
	CZ	2002/0064911		Eltan	5/30/2002	
	DA	2002/0191465		Maayan et al.	12/19/2002	
	DB	6,292,394		Cohen et al.	9/18/2001	
	DC	6,272,047		Mihnea et al.	8/7/2001	
	DD	5,689,459		Chang et al.	11/18/1997	
	DE	5,537,358		Fong	07/16/1996	
	DF	5,400,286		Chu et al.	03/21/1995	
	DG	4,613,956		Paterson et al.	9/23/1986	

Date
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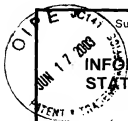
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet

4

of

5

1

Application Number

09/730.586

Filing Date

December 7, 2000

First Named Inventor

AVNI, Dror et al.

Group Art Unit

2818

Examiner Name _____

Ho. H.

Attorney Docket Number

P-2448-US1

FOREIGN PATENT DOCUMENTS

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet	5	of	5	Attorney Docket Number	P-2448-US1
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Complete if Known

Application Number	09/730,586
Filing Date	December 7, 2000
First Named Inventor	AVNI, Dror et al.
Group Art Unit	2818
Examiner Name	Ho, H.
Attorney Docket Number	P-2448-US1

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	include name of the author (in CAPITAL LETTERS), title of the article (where appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	DN	Bude et al., "EEPROM Flash Sub 3.0V Drain-Source Bias Hot Carrier Writing" IEDM 95, pp. 989-992.	<input type="checkbox"/>
	DO	Bude et al., "Secondary Electron Flash – a High Performance, Low Power Flash Technology for 0.35 μ m and Below", IEDM 97, pp. 279-282.	<input type="checkbox"/>
	DP	Bude et al., "Modeling Nonequilibrium Hot Carrier Device Effects", Conferences of Insulator Specialists of Europe, Sweden, June, 1997.	<input type="checkbox"/>
	DQ	Jung et al., "A 117-mm ² 3.3V Only 128-Mb Multilevel NAND Flash Memory for Mass Storage Applications" IEEE Journal of Solid-State Circuits, Vol. 31, No. 11, November 1996, pp. 1575-1583	<input type="checkbox"/>
	DR	Campardo et al., "40mm ² 3-V-Only 50 MHz 64-Mb 2-b/cell CHE NOR Flash Memory", IEEE Journal of Solid-State Circuits, Vol. 35, No. 11, November 2000, pp. 1655-1667	<input type="checkbox"/>
	DS	Lin et al., "Novel Source-Controlled Self-Verified Programming for Multilevel EEPROMs", IEEE Transactions on Electron Devices, Vol. 47, No. 6, June 2000, pp. 1166-1174	<input type="checkbox"/>
	DT	Eitan, US Patent Application No. 08/902,890, filed July 30, 1997	<input type="checkbox"/>
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			<input type="checkbox"/>

Examiner Signature	Date Considered
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